



US Army Corps
of Engineers®
Norfolk District

VOLUME 16
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Mark Your
Calendar...

Former Nansemond
Ordnance Depot
Restoration
Advisory Board
Meeting



Thursday,
December 1

Time:
6:30 PM - 8:30 PM

All Are Welcome!

Location:

Bon Secours Health Center
at Harbour View
5818 Harbour View Boulevard
(Suffolk)

*We do not inherit the earth
from our ancestors, we
borrow it from our children.
– Native American Proverb*

2005: A Year in Review

The U.S. Army Corps of Engineers (the Corps) continues munitions response and environmental investigation efforts at the Former Nansemond Ordnance Depot (FNOD) in north Suffolk. The Corps has spent \$3 million on environmental studies and \$1.3 million on munitions-related investigations at the site this year. "Our project dollars are shifting more toward environmental studies now that we have addressed most of the known munitions sites at the former depot," says Adriane James, the U.S. Army Corps Formerly Used Defense Site Program Manager. The following are some of the highlights from 2005.

Munitions Response Highlights



Horseshoe Pond under investigation

Horseshoe Pond Investigation Makes the News

– In June, the Corps drained a 1.2-acre pond –known as the Horseshoe Pond–near the banks of the Nansemond River. This was necessary to investigate two buried objects which were detected by geophysical equipment during a prior investigation. No one knew what was lurking on the bottom of the pond. This pond was located near a known waste disposal site that was used for about 10 years beginning in the late 1940s. The Horseshoe Pond was one of six parcels within the FNOD boundary that the EPA proposed for inclusion on the National Priorities List in 1999.

Once the pond was drained and the field crew could get a better look at the items – the mystery

was solved. The recovered objects were two rusted steel pipes and metal wire. No munitions were discovered. The field crew expected something a lot larger than what they found. The horizontal positioning of the pipes created a magnetic signature that exaggerated the size of the objects during the prior geophysical scan. "When we get

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2005: A Year in Review

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a reading like this, we have to go and find out” said Gerald Rogers, spokesman for the Corps. The investigation was covered by all three local newspapers. The pond’s ecosystem and water level have already been reestablished naturally.

Sitewide - In 2005, the Corps removed 24 discarded military munitions items, 556 pounds of munitions debris, and over 140,149 pounds of scrap from the site. The munitions items included: 20mm projectiles, 40 mm projectiles, 50 Cal. rounds, small arms, and an M48 Fuze. The Corps had two teams of ordnance specialists working concurrently throughout the year on the project.



40 mm projectile (top), M48 Series Fuze (bottom)

Main Burning Ground/Welner Drive - Most of the Corps’ munitions response efforts have focused on the GE Main Burning Ground/Welner Drive area. This 32-acre site is the largest known munitions site at FNOD and was used by the military between 1942 and the late 1950s, first as a burning ground, then as a waste disposal area. The vast amounts of debris at the site have made

the munitions investigation very time consuming. As a result, the Corps began using a mechanical sifter on site on Sept. 6. The mechanical sifter has allowed the team to sift through the debris at twice the speed of the previous manual sifting rate. The crew hopes to increase the sifting speed by 4 times the manual rate once they are more proficient with the equipment.



Mechanical sifter (top), and the sifter crew (bottom)

“We’re making exceptional progress in the GE Main Burning Ground now that the sifter is being used,” says Corps Project Manager George Mears. The Corps will continue to focus on the GE Main Burning Ground through November. Following hurricane season, which ends on November 30, the Corps will initiate munitions investigation efforts at the Nansemond River Beachfront.

Continuous munitions response efforts began at the former depot in 2000 and are expected to continue through September 2008. Between 2000 and 2005, the Corps removed 2,575 discarded munitions items, 8,874 pounds of bulk explosives, and 3.4 million pounds of debris and contaminated soil.

Environmental Studies Highlights

The former depot property is now home to the Tidewater Community College Portsmouth Campus, GE, HRSD, and Bridgeway Commerce Park. This 975-acre parcel is considered prime real estate for new businesses and housing developments. As a result, the Corps project team plans to complete environmental studies as thoroughly as possible. The Corps is striving to cleanup FNOD areas of concern so that they are suitable for residential and/or unrestricted use. Restoration Advisory Board (RAB) members including community members, current landowners, and city representatives meet regularly with the Corps project team, EPA, and the Virginia Department of Environmental Quality to discuss the Corps’ efforts. “My whole reason for being on this RAB is to make sure that landowners (current and future) are not saddled with having to find buried drums on their property like they are in Chesapeake,” said David Saunders, a community RAB member at the April meeting.

Between 2000 and 2005, the Corps completed much of the groundwork needed to accelerate the environmental restoration program at FNOD. There are currently six EPA designated National Priority List “Source Areas” and 23 Areas of Concern that need to be investigated or evaluated. During the first half of the year, the Corps completed a background sampling report, a site screening process, and field work for a sitewide groundwater model. Each of these are critical for evaluating environmental sampling data at the sites under review.

Groundwater –What do we know?

The Corps used groundwater elevation levels from 65 to 85 monitoring wells around the former depot to gather information for the sitewide groundwater model. This computer model provides information on groundwater flow under the 975-acre site. Groundwater flows through subsurface units

called aquifers. The upper aquifer, which is near the surface, is separated from the lower aquifer by a clay layer called a confining unit. Groundwater generally flows toward the rivers at velocities that have been estimated at between 20 and 200 feet per year in the uppermost aquifer, and from 50 to 300 feet per year in the lower (deeper) aquifer. The model also indicates that there are seasonal differences in how the groundwater interacts with the lakes on site. During drier seasons, the lakes discharge to groundwater. In wetter periods, the groundwater flows into the lakes. The Corps is continuing to evaluate how the groundwater interacts with surface water around the site. The model is already being used to determine optimal groundwater monitoring well locations at environmental study sites. It will ultimately tell the project team which direction groundwater contaminants may migrate. Currently, the Corps is only aware of three sites at FNOD that have potentially problematic levels of contaminants in the groundwater. They include the TNT area, the Area of Concern (AOC) east of the Horseshoe Pond referred to as the Arsenic Investigation Area, and the Renovation Plant AOC located near the present day TCC Truck Driving School practice facility.

Track K Studies Complete

The Corps completed human health and ecological risk assessments at the Track K Dump (tire pile and paint can area) this year to determine if any further action is needed at this site. Despite the fact that two soil sample locations at the site had slightly elevated levels of dieldrin and dioxin, the results of the risk assessments indicate that the site poses no risk to human health or the local ecosystem. This is great news! This means that the parcel is suitable for unrestricted and/or residential use. Based on these findings, the U.S. Army Corps is proposing no further action.



Track K former dump site

This *Proposed Plan* is currently being reviewed by EPA. The Corps is seeking public input and

will be hosting a public meeting to discuss the site in the first quarter of 2006. There will also be a 30 to 45 day public comment period following the public meeting. Stay tuned for the meeting details.

2006 Plan of Action

The Corps has the following activities planned for 2006:

Environmental Studies

- Update Site Management Plan and Site Screening Process
- Finalize sitewide groundwater model
- Complete Track K dump Record of Decision – No Further Action is anticipated.
- Complete James River beachfront Record of Decision – No Further Action is anticipated.
- Complete Groundwater investigation and draft Remedial Investigation Report at the TNT Area
- Conduct Site/Groundwater Investigation at Area of Concern 22 (Arsenic Investigation Area)
- Complete human health and ecological risk assessment reports for TCC Lake
- Complete Horseshoe Pond Remedial Investigation/Feasibility Study
- Complete Pesticide Drum area Remedial Investigation/Feasibility Study
- Complete Site Screening evaluations and reports for 9 Areas of Concern (AOCs) including: GE Pond & Culvert, Track J, the Former Water Treatment Plant, Track K Line, Track K Landfill, Track G, Track H & I, Marine Corps Power Generation Facility, and Former Wastewater Treatment Plant

Military Munitions Response Program

- Submit final FNOD Time Critical Removal Action Report to EPA
- Complete the munitions investigation for the Main Burning Ground kickout areas
- Characterize Nanesmond River beachfront munitions issues
- Characterize J-Lake and Track A & B burning ground munitions issues

FNOD RAB Member List

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Restoration News

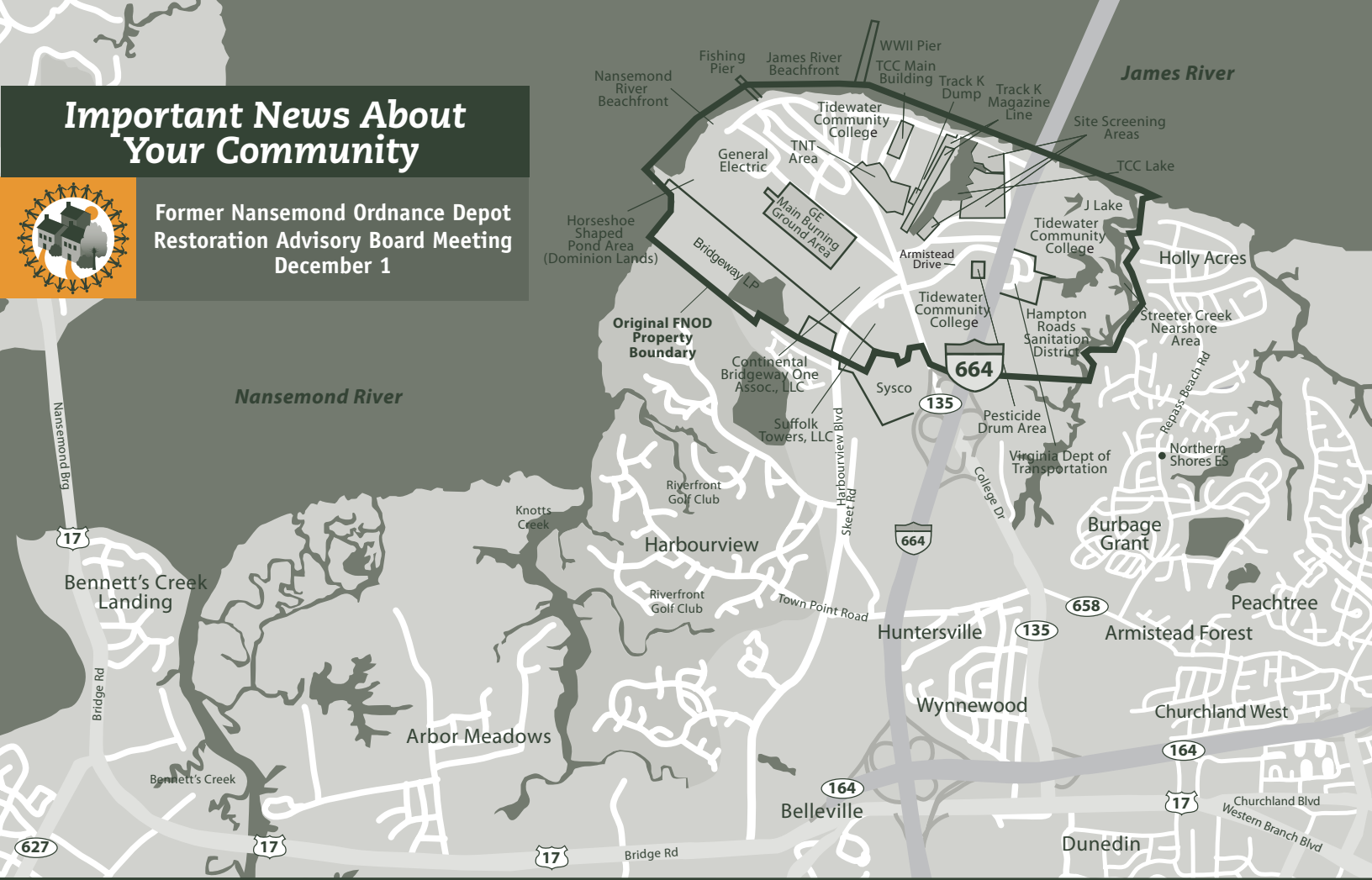
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Former Nansemond Ordnance Depot Project Update

Important News About Your Community

Former Nansemond Ordnance Depot
Restoration Advisory Board Meeting
December 1



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